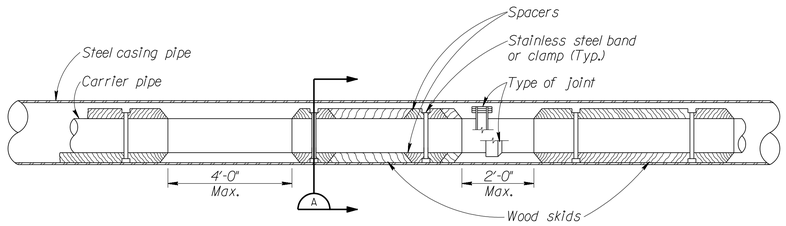
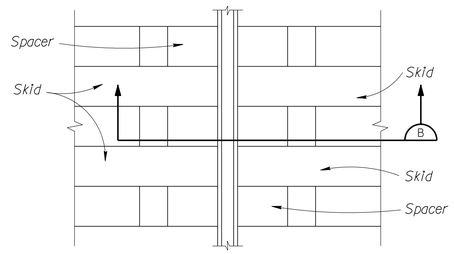
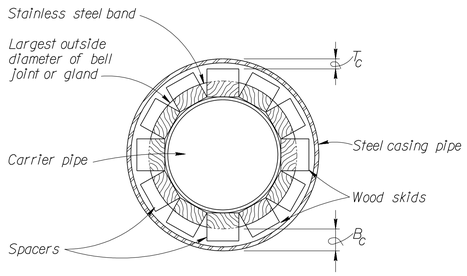




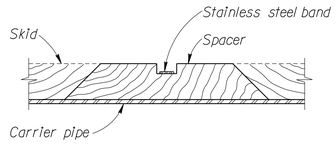
SPACER

SKID DETAILS
NO SCALE

NOTES:
1. Bc-Minimum bottom clearance between outside diameter of bell, joint, or gland and casing pipe.
2. Tc-Range for clearance between skids and casing pipe at the top.
3. Wood for the skids shall be redwood or treated fir. See specification for preservative treatment. Skids shall be of the lenght required to provide a maximum of 4 feet span between skids on the same pipe section and a maximum of 2 feet span between skids on adjacent pipe sections (at the joint). Minimum skids length shall be 2½feet.
4. Skid ends edges shall be beveled at 45 degrees. If lubrication is used for easier pushing or pulling the carrier pipe, lubricant shall be applied to the casing pipe and not the skids. Lubricant shall not come into contact with the carrier pipe.
5. The skids shall be square but the width of one skid may be varied to provide proper spacing. The skids shall be of sufficient height to permit minimum Bc clearance between the pipe bell, joint, or gland and the cassing wall if pipe rotated inside of the casing. A minimum of 4 skids shall be provided for carrier pipe of 6 inches or less.
6. Alternating skids may be replaced with spacers. The spacers shall be positioned under the hands or straps so that they are securely fastened into place to prevent movement.
7. The skids shall be securely fastened to the pipe by 1 inch wide stainless steel straps or bands with suitable corrosion proof fasteners. The fasteners shall not extend beyond the outside diameter of the skids. The straps or bands shall be positioned in ¼ to ½ inch deep notches in the wood skids or spacers. Two straps or bands shall be provided at each end of skids for pipes 12 inches or larger.

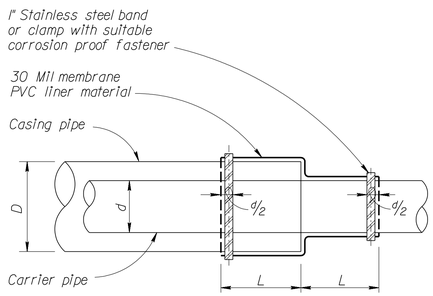


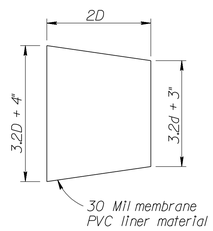
SECTION A
NO SCALE



SECTION B
NO SCALE

CLEARANCE DISTANCE		
Carrier pipe size	B_C	T_C
6" Or less	½"	¾"-1"
8"	¾"	1"-1½"
10"	¾"	1"-1½"
12"	¾"	1"-1½"
14"	1"	1"-1½"
16"	1"	2"-3"





NOTES:
1. L=D with L max=16".
2. Bevel end of casing pipe to remove all sharp edges to prevent damage to the liner material.
3. Damaged or defective end seal shall be replaced by the contractor at no additional cost to the government.
4. The seal shall be attached to the pipe and casing so as to provide a tight end seal.
5. Fill the annular space between the pipe and casing a minimum of 6" back from the end of the casing with expanded polyurethane foam.
6. Solvent cement seams shall provide a minimum of 2 inches overlap. Use solvent cement as approved by the liner manufacturer.
7. For casings over 12 inches in diameter, provide 2 clamps or bands on each end of each seal.

END SEAL DETAIL FOR CASING PIPE
NO SCALE

$$ – THINK VALUE ENGINEERING – $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by:
Checked by:
Reviewed by:
Submitted by:
Chief: Section

SITE NAME: OMAHA DISTRICT DESIGN GUIDE
SITE LOCATION

CASING PIPE DETAIL

Plot Scale Ratio:
Design File:
Spec. No.: DACA 45
Contract No.: DACA 45
Date: JUNE 2002
Drawing Code: X
Sheet reference number: U4.01

COMPUTER AIDED DESIGN & DRAFTING

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